

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Tidewater Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Tyson Foods, Incorporated
Accomack County, Temperanceville, Virginia
Permit No. TRO40333

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Tyson Foods, Inc., has applied for a Title V Operating Permit for its Accomack County, Temperanceville facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

_____ Date: _____

_____ Date: _____

_____ Date: _____

FACILITY INFORMATION

Permittee

Tyson Foods, Inc.
P.O. Box 8
Temperanceville, Virginia 23442

Facility

Tyson Foods, Inc.
P.O. Box 8
Temperanceville, Virginia 23442

AFS Id. No.: 51-001-00002

SOURCE DESCRIPTION

SIC Code 2016 - Poultry and poultry by-products

SIC Code 2077 - Inedible poultry by-products - poultry meal, poultry fat, feather meal

The manufacturing operations consist of processing live chickens into marketable commodities. This is accomplished through slaughtering, defeathering, evisceration, chilling, and final packaging and shipping.

The protein conversion operations consist of rendering offal and feather waste into useable products, which include poultry meal, feather meal, and poultry fat.

The facility is a Title V major source of Sulfur Dioxide (SO₂) and Nitrogen Oxides (as NO₂). This source is located in an attainment area for all pollutants, and is a PSD-sized source, but has not been issued any PSD permits. The facility was previously permitted under a Minor NSR/NSPS Permit, issued on October 24, 2003.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following :

Emission Unit Id.	Stack ID	Emission Unit Description	Size/Rated Capacity*	Applicable Permit Date
Fuel Burning Equipment				
PB1	PB1V	No. 6 Fuel Oil Boiler, Cleaver Brooks, installed 1971	14.7 million Btu/hr	NSR/NSPS permit October 24, 2003
PB2	PB2V	No. 6 Fuel Oil Boiler, Cleaver Brooks, installed 1967	6 million Btu/hr	NSR/NSPS permit October 24, 2003
PB3	PB3V	No. 6 Fuel Oil Boiler, Cleaver Brooks, installed 1969	14.7 million Btu/hr	NSR/NSPS permit October 24, 2003
RB1	RB1V	No. 6 Fuel Oil Boiler, Cleaver Brooks, installed 1977	29.3 million Btu/hr	NSR/NSPS permit October 24, 2003
RB2	RB2V	No. 6 Fuel Oil Boiler, Cleaver Brooks, installed 1972	29.3 million Btu/hr	NSR/NSPS permit October 24, 2003
RB3	RB3V	No. 6 Fuel Oil Boiler, Cleaver Brooks, installed 1977	29.3 million Btu/hr	NSR/NSPS permit October 24, 2003
RB4	RB4V	No. 6 Fuel Oil Boiler, Cleaver Brooks, installed 1993	29.3 million Btu/hr	NSR/NSPS permit October 24, 2003
PH1	PH1V	Two Propane Quikwater Hot Water Heaters, installed 1999	12.5 million Btu/hr each	April 15, 1999 NSR Exemption
PG1	PG1V	One diesel-fired engine generator set	10.01 million Btu/hr	NSR/NSPS permit October 24, 2003
Process Operations				
1PS	PCS8	Fresh packaged poultry from live poultry processing	200,000 birds/day	NSR/NSPS permit October 24, 2003
2RS	PCS1 PCS2 PCS3 PCS4 PCS5 RC1V PCS9V	Pet food grade poultry offal by-products rendering	60,000 pounds/hour	NSR/NSPS permit October 24, 2003
3RS	PCS1 PCS2 PCS3	Feed grade poultry offal by-products rendering	24,000 pounds/hour	NSR/NSPS permit October 24, 2003

	PCS4 PCS6 RC2V			
4RS	PCS1 PCS2 PCS3 PCS4 PCS7 RC3V	Poultry feather by-products rendering	21,000 pounds/hour	NSR/NSPS permit October 24, 2003
5RS	PCS1 PCS2 PCS3 PCS4	Poultry blood by-products rendering	8,000 pounds/hour	NSR/NSPS permit October 24, 2003

Pollution Control Equipment consists of:

Stack No.	Control Equipment Description	Manufacturer and Date of Construction	Size/Rated Capacity	Pollutant
PCS1V	scrubber	AC Corporation	95% efficient	plant air
PCS2V	scrubber	Ceilcote	95% efficient	plant air noncondensibles
PCS3V	spray tower	AC Corporation	95% efficient	noncondensibles
PCS4V	packed tower	AC Corporation	95% efficient	noncondensibles
PCS5V	cyclone		80% efficient	process vapor
PCS6V	cyclone		80% efficient	process vapor
PCS7V	cyclone		80% efficient	process vapor
PCS8V	baghouse		90% efficient	feathers and dust from live hang
RC1V	air cooled condenser	MRM	97% efficient	process vapor
RC2V	air cooled condenser	MRM	97% efficient	process vapor
RC3V	air cooled condenser	AC Corporation	97% efficient	process vapor
PCS9V	venturi scrubber	Stord Inc.	95% efficient	concentrated odors from process equipment

*The Size/Rated capacity and PCD efficiency is provided for informational purposes only, and is not an applicable requirement.

EMISSIONS INVENTORY

A copy of the 2002 annual emission statement is attached. Emissions are summarized in the following tables.

	2002 Facility Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO ₂	PM ₁₀	NO _x
Total	0.5	8.1	344.6	0.1	75.1

EMISSION UNIT APPLICABLE REQUIREMENTS - Fuel Burning Equipment Requirements Using Fuel Oil (Emission Unit Nos. PB1, PB2, PB3, RB1, RB2, RB3, RB4, PH1, and PG1)

Limitations:

Following are limitations from the existing NSR/NSPS permit issued October 24, 2003:

Conditions 19, 20, and 21: limiting fuel type, fuel throughput, and fuel specifications.

Condition 24: limiting criteria pollutant emissions.

Conditions 25, 26, and 27: limiting visible emissions (opacity limitation).

Condition 23: work practice standards.

Condition 37: limiting emergency generator use to 500 hours per year.

Following is a limitation from the existing exemption letter issued April 15, 1999:

Limitation on fuel type for Unit PH1 (hot water heaters).

Recordkeeping:

Following are recordkeeping requirements from the existing NSR/NSPS permit issued October 24, 2003, exemption issued April 15, 1999, and requirements from 40 CFR 60, Subpart Dc:

Condition 22 and 40 CFR 60.48c(f): requiring fuel certification.

Condition 23: requiring training records.

Conditions 41 and 40 CFR 60.48c: requiring records of fuel throughput, fuel certifications, emergency generator hours of operation, maintenance, training, opacity data, and emission factors.

Reporting:

Following are reporting requirements from the existing NSR/NSPS permit issued October 24, 2003, and requirements from 40 CFR 60, Subpart Dc:

Condition 44 and 40 CFR 60.48c: requiring submission of fuel quality reports.

**EMISSION UNIT APPLICABLE REQUIREMENTS - Fuel Burning Equipment Requirements
Using Poultry Fat (Emission Unit Nos. PB1, PB2, PB3, RB1, RB2, RB3, and RB4)**

Limitations:

Following are limitations from the existing NSR/NSPS permit issued October 24, 2003:

- Conditions 29 and 30: limiting fuel type and fuel throughput.
- Condition 32: work practice standards.
- Conditions 33 and 34: limiting criteria pollutant emissions.
- Condition 36: limiting visible emissions (opacity limitation).

Monitoring:

Following are monitoring requirements from the existing NSR/NSPS permit issued October 24, 2003:

- Condition 31: requiring fuel sampling and analysis.
- Conditions 38, 39, and 40: requiring initial and continuing compliance determinations.

Recordkeeping:

Following are recordkeeping requirements from the existing NSR/NSPS permit issued October 24, 2003:

- Condition 32: requiring training records.
- Condition 41: requiring records of fuel throughput, fuel sample analyses, emission factors from stack testing, stack test results, visible emissions evaluations, maintenance, training, and emission factors.

**EMISSION UNIT APPLICABLE REQUIREMENTS - Fuel Burning Equipment Requirements
Using Either Fuel Oil or Poultry Fat (Emission Unit Nos. PB1, PB2, PB3, RB1, RB2, RB3,
and RB4)**

Limitations:

Following are limitations from the existing NSR/NSPS permit issued October 24, 2003:
Condition 35: limiting criteria pollutant emissions.

Recordkeeping:

Following are recordkeeping requirements from the existing NSR/NSPS permit issued October 24, 2003:
Condition 41: requiring calculation of actual annual sulfur dioxide emissions and nitrogen oxide emissions.

**EMISSION UNIT APPLICABLE REQUIREMENTS - Rendering Plant Operation
Requirements (all units except fuel burning equipment)**

Limitations:

Following are limitations from the existing NSR/NSPS permit issued October 24, 2003:

- Conditions 3 and 4: requiring control of odor emissions.
- Conditions 5 and 6: requiring monitoring devices and monitoring device observation.
- Conditions 7, 8, 9, 10, 11, 12, and 13: requiring operational and work practice standards.
- Conditions 14 and 15: requiring an Emergency Odor Response Plan.
- Condition 16: limiting rendering plant throughput.
- Condition 17: requiring work practice standards.
- Condition 18: allowing DEQ to stop facility operation.
- Condition 50: requiring implementation of the Emergency Odor Response Plan.

Recordkeeping:

Following are recordkeeping requirements from the existing NSR/NSPS permit issued October 24, 2003:

- Condition 17: requiring training records.
- Conditions 41: requiring records of scrubbing liquid flow and pH, throughput, negative pressure checks, and a copy of the Emergency Odor Response Plan.

Notifications:

Following are notification requirements from the existing NSR/NSPS permit issued October 24, 2003:

- Condition 45: requiring notification for date of installation of hydrolysers, and notification for actual start-up of hydrolysers.

EMISSION UNIT APPLICABLE REQUIREMENTS - Facility-Wide Conditions

Limitations:

Following are limitations from the existing NSR/NSPS permit issued October 24, 2003:

- Condition 42: requiring construction in such a manner that testing and monitoring can be performed.
- Condition 43: requiring records of the names, addresses, and phone numbers of the persons accountable for daily operations.
- Condition 48: requiring notification for control equipment maintenance.
- Condition 51: requiring reduction of operation, upon DEQ request, to avoid violating any primary ambient air quality standard.
- Condition 52: requiring maintenance and operating procedures.
- Condition 55: requiring registration and updates.

The following Virginia Administrative Codes have specific emission requirements have been determined to be applicable:

- 9 VAC 5-40-80: Existing Source Standard for Visible Emissions
- 9 VAC 5-50-80: New Source Standard for Visible Emissions

Monitoring and Testing:

The source is required to perform a monthly visible emissions observation, and a Method 9 VEE, if necessary. Records of the visible emissions observations, VEEs, and correction actions are to be maintained. If testing is to be conducted in addition to specified monitoring, the permittee is required to use the test methods described in the permit.

Streamlined Requirements

There are no streamlined requirements for this permit.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement NO. 3-2001”.

This general condition cites the Articles that follow:

Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Operating Permits for Stationary Sources

This general condition cites the sections that follow:

9 VAC 5-80-80. Application

9 VAC 5-80-140. Permit Shield

9 VAC 5-80-150. Action on Permit Applications

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

J. Permit Modification

This general condition cites the sections that follow:

9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources

9 VAC 5-80-190. Changes to Permits.

9 VAC 5-80-260. Enforcement.

9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources

9 VAC 5-80-1790. Applicability, Permits For Major Stationary Sources and Modifications
Located in Prevention of Significant Deterioration Areas

9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications
Locating in Nonattainment Areas

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

This general condition cites the sections that follow:

9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction

9 VAC 5-80-110. Permit Content

STATE-ONLY APPLICABLE REQUIREMENTS

There are no state-only applicable requirements for this facility.

FUTURE APPLICABLE REQUIREMENTS

There are no future-applicable requirements for this facility.

INAPPLICABLE REQUIREMENTS

Tanks previously subject only to recordkeeping and reporting under 40 CFR 60 Subpart Kb have been exempted by EPA's recent amendment of Subpart Kb (see Wednesday, October 15, 2003, Federal Register, attached).

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

COMPLIANCE PLAN

There is no compliance plan for this facility.

INSIGNIFICANT EMISSION UNITS

The following units have been identified as insignificant:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
Storage Tanks				
14RT	Poultry Process Sludge	9 VAC 5-80-720 B	VOC	5,200 gallons
15RT	Poultry Process Sludge	9 VAC 5-80-720 B	VOC	5,200 gallons
SC1	Used Lubricants	9 VAC 5-80-720 B	VOC	4,000 gallons
SC2	Unleaded Gasoline	9 VAC 5-80-720 B	VOC	500 gallons
TP2	Unleaded Gasoline	9 VAC 5-80-720 B	VOC	500 gallons
TP3	Diesel Fuel	9 VAC 5-80-720 B	VOC	500 gallons
1RT	No. 6 Fuel Oil	9 VAC 5-80-720 B	VOC	20,000 gallons
2RT	No. 6 Fuel Oil	9 VAC 5-80-720 B	VOC	20,000 gallons
3RT	Poultry Fat	9 VAC 5-80-720 B	VOC	20,000 gallons
4RT	Poultry Fat	9 VAC 5-80-720 B	VOC	20,000 gallons
5RT	Poultry Fat	9 VAC 5-80-720 B	VOC	20,000 gallons
6RT	Poultry Fat	9 VAC 5-80-720 B	VOC	20,000 gallons
SC3	Diesel Fuel	9 VAC 5-80-720 B	VOC	15,000 gallons
TP1	No. 6 Fuel Oil	9 VAC 5-80-720 B	VOC	12,000 gallons
HAT1	Diesel Fuel	9 VAC 5-80-720 B	VOC	10,000 gallons

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit has been placed on public notice in the Eastern Shore News from November 19, 2003, to December 20, 2003.